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ABSTRACT

In 1991, the Maryland State Board for Community Colleges developed the "success rate," a reporting index which combined graduation, transfer, and persistence rates. Success rate matrices were produced by tracking first-time, full-time students representing seven cohorts (1980 to 1986) over a 4-year period, and matching entering enrollment files with subsequent enrollment and graduation files from all public two- and four-year campuses in Maryland. A review of Maryland's success trends revealed the following: (1) 46% of the cohort entering in fall 1986 had either transferred, graduated, or were still enrolled after four years, an increase of 4% over the 1980 cohort; (2) colleges with the highest success rates were most often located in rural areas or smaller towns and had a higher concentration of full-time students; (3) within peer colleges (grouped by size and location) those with the highest success rates had traditions of strong academic advising systems, computer-assisted audits of progress toward degrees, and younger student bodies; (4) transfer rates increased from 21% for the 1980 cohort to over 26% for the 1986 cohort; (5) the graduation rate increased from 18% to 20% over the seven cohorts; (6) between 8% and 10% of the cohorts were still enrolled at the end of the 4-year tracking period; (7) the success rate of African-American students increased (27% for 1980 vs 28% for 1986), but remained lower than that of White students (46% for 1980 vs 52% for 1986); and (8) the success rate of male students increased from 39% to 44%, while the rate for female students increased from 42% to 49%. Five data tables, a graph and six references are included. (JSP)

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METHODOLOGY AND IMPLICATIONS OF STATEWIDE SUCCESS RATES OF COMMUNITY COLLEGE STUDENTS

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ABSTRACT

Community colleges use different approaches to define and measure the institutional effectiveness. The Maryland State Board for Community Colleges in cooperation with the 17 community colleges and Maryland Higher Education Commission developed reporting index called the "Success Rate" which tracks the graduation, transfer, and still enrolled status of students who started as full-time four years earlier. An analysis of seven cohort periods from 1980 to 1986 revealed an increase in the success rates of community college students. This paper briefly describes procedure for matching student enrollment and graduation files from colleges. The implications of success trends will be discussed and the success rates of various subgroups will be examined. The paper is intended for institutional researchers, policy makers, and academic administrators.

INTRODUCTION

Each community college provides a wide range of academic programs and services to its students. As a result, the institution usually requires different approaches to define and measure institutional effectiveness at a level where the outcomes are useful to the college. However, many outside observers, including legislators, are concerned with outcomes which they expect to fit each campus and which they expect to be reported on a regular basis. Satisfying the need for outcome measures that hold the college "accountable" to these outside observers and the need for outcome measures that are sensitized enough to allow the college to evaluate its own programs and practices is a constant challenge for the institutional research community. The Maryland State Board for Community Colleges in cooperation with the seventeen community colleges and the Maryland Higher Education Commission has developed an outcome index called the "Success Rate" which tracks

graduation, transfer and still enrolled status of students for four years. The purposes of this paper are to examine the success trends of Maryland community college students, to review the implications for such trends, and to examine data collections and analyses methods which can provide appropriate information regarding trends in success rates.

METHODOLOGY

Success rate matrices were produced by matching the enrollment file for full-time first-time students with subsequent enrollment and graduation files from all public two- and four-year campuses in Maryland. If a student in a cohort had transferred or graduated within four years, or was still enrolled at the community college at the end of the four-year period, that student was included in calculating the success rate for that particular cohort of students. These data matrices also provide the ability to track groups of students such as African-American and white students, male and female students, and students enrolled in transfer programs and career programs. Data for seven cohort periods (1980 through 1986) were analyzed.

RESULTS

Success Rate

Forty-six percent of the first-time full-time students in Maryland who had first entered the community colleges in Fall 1986 had either transferred, graduated or were still enrolled at the community college after four years. This success rate has increased by four percentage points over the seven cohort periods (1980, 1981, 1982, 1983, 1984, 1985, and 1986 entering students who were tracked for the next four years) that have been studied (Tables 1 and 2 and Figure 1).

The data analyzed by each campus allows each college to compare its success rate to those of peer campuses or to the state average success rate. The success rates for various colleges ranged from 26 percent to 57 percent for the 1986 cohort. The success rate at

TABLE 1

STATUS OF FIRST-TIME FULL-TIME STUDENTS FOUR YEARS LATER
MARYLAND COMMUNITY COLLEGES

ALL STUDENTS

Cohort Year	Initial Cohort Number	Transfer to a 4-Year College			Graduated Not Transferred	Graduation Rate	Still Enrolled	"Success Rate"	Range of Success Rates for 17 Colleges
		No Degree	With Degree	Transfer Rate					
1980	10,617	14%	7%	21%	13%	20%	8%	42%	23% - 49%
1981	10,733	14%	7%	21%	13%	20%	8%	42%	23% - 54%
1982	10,783	15%	7%	22%	13%	20%	8%	43%	26% - 55%
1983	10,265	15%	7%	22%	11%	18%	8%	41%	19% - 61%
1984	9,583	16%	8%	24%	11%	19%	8%	43%	24% - 56%
1985	8,942	17%	8%	25%	11%	19%	9%	45%	25% - 58%
1986	8,988	18%	8%	26%	10%	18%	10%	46%	26% - 57%

TABLE 2

STATEWIDE 'SUCCESS RATE' OF COMMUNITY COLLEGE FIRST-TIME FULL-TIME STUDENTS FOUR YEARS LATER

Indicator		Fall 1980	Fall 1981	Fall 1982	Fall 1983	Fall 1984	Fall 1985	Fall 1986
Percent Transferring		**21%**	**21%**	**22%**	**22%**	**24%**	**25%**	**26%**
- With No Degree	+	14	14	15	15	16	17	18
- With Degree		7	7	7	7	8	8	8
Percent Graduating	+	**20**	**20**	**20**	**18**	**19**	**19**	**18**
Percent Still Enrolled	+	**8**	**8**	**8**	**8**	**8**	**9**	**10**
SUCCESS RATE	=	**42%**	**42%**	**43%**	**41%**	**43%**	**45%**	**46%**

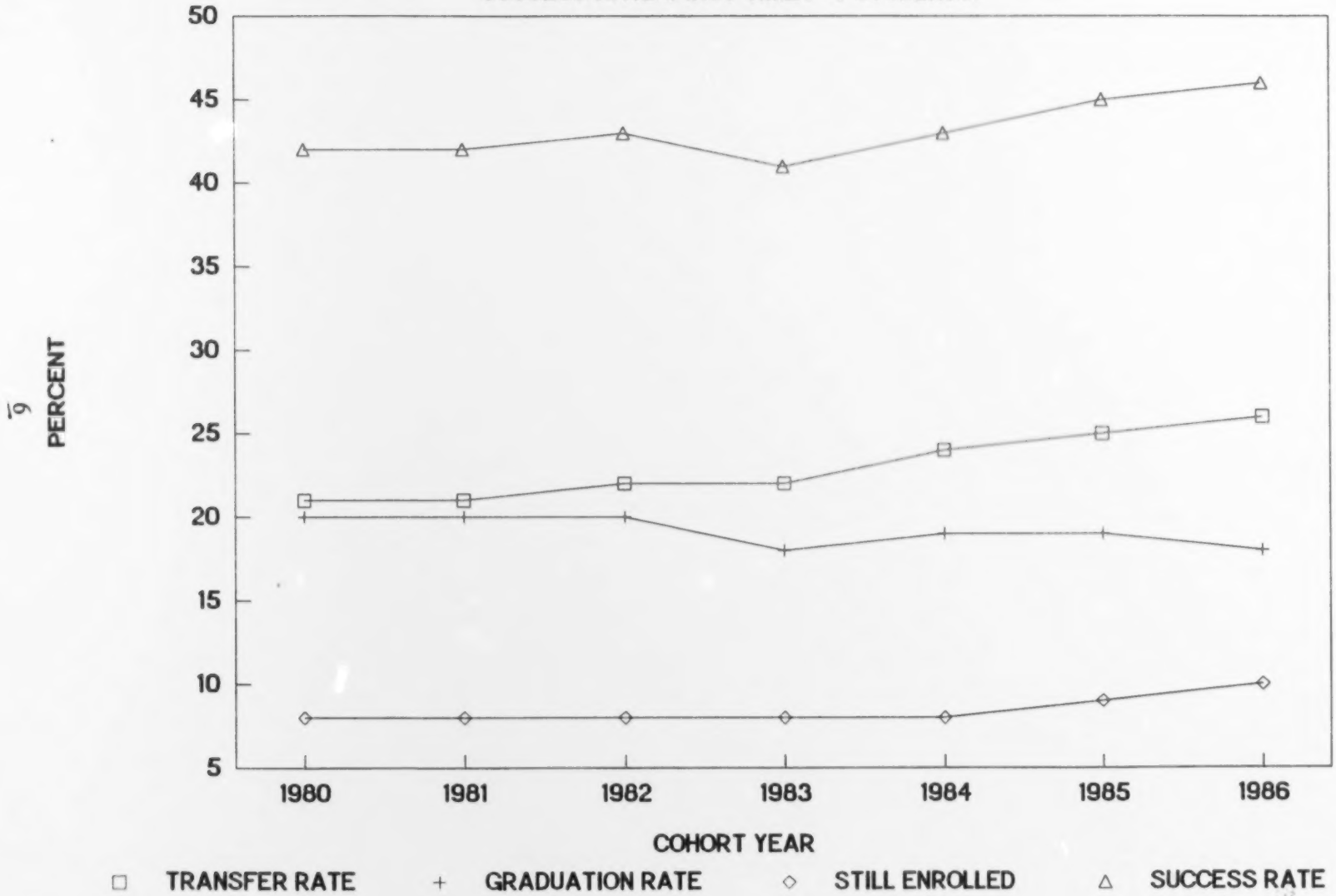
Source: Enrollment Information System (EIS)

Prepared by MD State Board for Community Colleges 02-91

FIGURE 1

MARYLAND COMMUNITY COLLEGES

SUCCESS RATE (FIRST TIME F-T STUDENTS)



almost every campus increased during this period. At several colleges it increased more than the statewide increase of four percent. Colleges with particularly high success rates over this period of time were likely to be located in rural areas or smaller towns, to have a higher concentration of full-time students (although only first-time full-time students are tracked). Within peer colleges (grouped by size and location) the highest rates were associated with colleges which had traditions of strong academic advising systems, computer assisted audits of progress toward degrees, and younger student bodies.

Transfer Rate

Transfer rate (transfer to 4-year campus) which is one of the components of the success rate, increased from 21 percent for the 1980 cohort to over 26 percent for 1986 cohort (Table 1). The increases in this component were primarily among students who transferred before earning a degree from the community college.

Graduation Rate

The graduation rate for all students (Table 1 shows the graduation rate for transfers and non-transfers) increased from 18 percent to 20 percent over the seven cohorts. The percentage of students who graduated and did not transfer was the only component of the Success Index which did not increase.

Still Enrolled

The last component of the Success Index is the "Still Enrolled" students who were enrolled at the community college during the last fall of the four-year tracking period. Between 8 to 10 percent of the cohorts were still enrolled at the end of the tracking period (Table 1). A number of the colleges are examining the characteristics and experiences of this group with the expectation that extra support may boost these students into a more legitimate category of the Success Index.

Students Not in the Success Categories

A fourth group of students in these cohort analyses are those who, by the fourth year, had not graduated, transferred to a four-year campus within the tracking domain, or were not enrolled in the last tracking semester. Colleges unhappy with their "success rate" are studying this fourth group to better understand the characteristics of these students.

Estimated Transfers

Depending on the college's distance from the Pennsylvania, West Virginia, Delaware, and Washington, D.C. borders and the community college's transfer patterns to private and public out-of-state campuses, it is estimated that statewide an additional 12 percent of these cohorts have transferred out of the tracking system. Follow-up surveys and analyses of where transcripts are sent provide each college with some sense of the number of cohort students involved and the characteristics of these students.

The last component of the Success Rate analyses is the group of students who, because they have not transferred, graduated, or are not still enrolled, might be categorized as "unsuccessful." Instructional Deans faced with their own unique success rate and its comparison with other similar colleges in the Maryland system, are anxious to understand the characteristics and experiences of this group. These student outcome indicators from cohorts which began their studies in the early and mid-80's will be the baseline for their own efforts with cohorts beginning in the subsequent years.

African-American and White Students

The "success rate" of African-American students increased over the seven cohort periods. However, it remained substantially lower than the white students (Table 3). In the area of transfer, the gap between white and African-American students increased, even though the transfer rate of African-American students had also increased. Among graduates

TABLE 3

STATUS OF FIRST-TIME FULL-TIME STUDENTS FOUR YEARS LATER
MARYLAND COMMUNITY COLLEGES

WHITE STUDENTS

Cohort Year	Initial Cohort Number	Transfer to a 4-Year College: No Degree	Transfer to a 4-Year College: With Degree	Transfer to a 4-Year College: Transfer Rate	Graduated Not Transferred	Graduation Rate	Still Enrolled	"Success Rate"	Range of Success Rates for 17 Colleges
1980	6,701	16%	8%	24%	15%	23%	7%	46%	26% - 52%
1981	6,768	15%	9%	24%	16%	25%	7%	47%	24% - 56%
1982	6,995	16%	9%	25%	15%	24%	8%	48%	30% - 56%
1983	6,351	17%	8%	25%	14%	22%	8%	47%	26% - 63%
1984	6,088	17%	10%	27%	14%	24%	8%	49%	36% - 65%
1985	5,882	18%	11%	29%	14%	25%	9%	52%	33% - 66%
1986	6,338	20%	10%	30%	12%	22%	10%	52%	33% - 59%

AFRICAN-AMERICAN STUDENTS

1980	2,228	7%	5%	12%	7%	12%	8%	27%	8% - 45%
1981	2,377	7%	4%	11%	7%	11%	7%	25%	17% - 40%
1982	2,279	7%	4%	11%	8%	12%	7%	26%	11% - 33%
1983	2,300	7%	3%	10%	5%	8%	6%	21%	11% - 50%
1984	2,090	8%	3%	11%	5%	8%	8%	24%	11% - 64%
1985	1,775	9%	3%	12%	5%	8%	8%	25%	18% - 40%
1986	1,671	10%	4%	14%	5%	9%	9%	28%	8% - 50%

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who did not transfer to four-year institutions, there was a decline in graduation rates for both African-American (1980: 7%; 1986: 5%) and white students (1980: 15%; 1986: 12%) during the seven cohort study periods. There were only small differences in the "percent of students still enrolled" among African-American and white students.

Male and Female Students

The success rate of male students increased from 39 percent to 44 percent while the rate for female students increased from 42 percent to 49 percent during the study period (Table 4). Although the transfer rate for female students (18%) started lower than the male students (24%) in 1980, the rate for both groups in the 1986 cohort was 26 percent.

Transfer and Career Students

The success rate for transfer students has generally been higher than the rate for career students. During the seven cohort periods, the success rate for transfer students increased from 43 percent to 50 percent, while the rate for career students increased from 41 percent to 46 percent (Table 5). As expected the transfer rate for students enrolled in transfer programs (32%) is significantly higher than the rate for career students (20%). The graduation rate without transfer and the overall graduation rate are higher for career students (16 percent and 24 percent for the career students in the 1986 cohort and 8 percent and 17 percent for the transfer students in the 1986 cohort).

TABLE 4

STATUS OF FIRST-TIME FULL-TIME STUDENTS FOUR YEARS LATER
MARYLAND COMMUNITY COLLEGES

MALE STUDENTS

Cohort Year	Initial Cohort Number	Transfer to a 4-Year College: No Degree	Transfer to a 4-Year College: With Degree	Transfer to a 4-Year College: Transfer Rate	Graduated Not Transferred	Graduation Rate	Still Enrolled	"Success Rate"	Range of Success Rates for 17 Colleges
1980	5,172	17%	7%	24%	9%	16%	7%	40%	17% - 49%
1981	5,103	16%	7%	23%	10%	17%	7%	40%	18% - 63%
1982	5,265	17%	7%	24%	9%	16%	7%	40%	25% - 53%
1983	4,936	17%	6%	23%	8%	14%	8%	39%	17% - 56%
1984	4,595	18%	7%	25%	7%	14%	8%	40%	24% - 59%
1985	4,372	20%	7%	27%	7%	14%	9%	43%	20% - 53%
1986	4,402	19%	7%	26%	8%	15%	10%	44%	22% - 55%

FEMALE STUDENTS

1980	5,443	11%	7%	18%	16%	23%	8%	42%	23% - 53%
1981	5,629	11%	8%	19%	16%	24%	8%	43%	27% - 59%
1982	5,515	13%	7%	20%	16%	23%	8%	44%	27% - 62%
1983	5,329	13%	7%	20%	14%	21%	8%	42%	19% - 65%
1984	4,988	14%	8%	22%	15%	23%	9%	46%	24% - 61%
1985	4,570	15%	9%	23%	15%	23%	9%	47%	25% - 67%
1986	4,586	17%	9%	26%	13%	22%	10%	49%	27% - 61%

TABLE 5

STATUS OF FIRST-TIME FULL-TIME STUDENTS FOUR YEARS LATER
MARYLAND COMMUNITY COLLEGES

TRANSFER STUDENTS

Cohort Year	Initial Cohort Number	Transfer to a 4-Year College			Graduated Not Transferred	Graduation Rate	Still Enrolled	"Success Rate"	Range of Success Rates for 17 Colleges
		No Degree	With Degree	Transfer Rate					
1980	6,018	18%	8%	26%	9%	17%	8%	43%	22% - 47%
1981	5,970	18%	8%	26%	10%	18%	8%	44%	27% - 50%
1982	5,852	19%	8%	27%	9%	17%	8%	44%	25% - 55%
1983	5,532	20%	8%	28%	8%	16%	9%	45%	21% - 62%
1984	5,459	21%	9%	30%	10%	19%	9%	49%	25% - 58%
1985	5,566	22%	10%	32%	8%	18%	10%	50%	24% - 58%
1986	5,802	22%	9%	31%	8%	17%	10%	49%	23% - 58%

CAREER STUDENTS

1980	4,599	9%	6%	15%	18%	24%	8%	41%	24% - 53%
1981	4,758	9%	7%	16%	18%	25%	8%	42%	21% - 61%
1982	4,931	10%	7%	17%	18%	25%	8%	43%	27% - 56%
1983	4,733	11%	6%	17%	16%	22%	8%	41%	19% - 62%
1984	4,109	10%	7%	17%	16%	23%	8%	41%	23% - 59%
1985	3,376	11%	7%	18%	18%	25%	9%	45%	26% - 63%
1986	3,186	12%	8%	20%	16%	24%	10%	46%	25% - 57%

IMPLICATIONS

The success rate developed by Maryland community colleges combines graduation, transfer and still enrolled status into one indicator. Its use as a summary measure of these three outcomes has been helpful in avoiding a political perspective that concentrates only on graduation rates. Breaking the measure down into its components provides insights into more discrete student outcomes. Indicators for public accountability purposes often need to be aggregates of discrete pieces of information and organizational actions. In order to make these same results most useful for Deans and their campuses, the most useful advice is often to disagregate, disagregate, disagregate.

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